DETERMINANTS AND PERFORMANCE OF CASH HOLDING: EVIDENCE FROM SMALL BUSINESS IN MALAYSIA

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ABSTRACT

Cash holding plays an important role in a business to ensure smooth operations. It is not only vital in the daily operation of a large firm but also in small firms such as a private firm or small and medium enterprise (SME). However, the manager puts less concern on the function of cash holding in small business. The purpose of this study is to investigate the effect of cash holding on small business performance in Malaysia. One hundred SMEs constituted the sample; panel data with robust standard errors were examined from 2011 to 2016. The findings indicate a significant relationship between cash holding and small business performance. We also investigate the determinant of cash holding in small business. Our results show that leverage, growth opportunity, firm size, cash flow volatility, capital expenditure and net working capital are determinant factors of cash holding in small business. Thus, this study can be directly contributed to SMEs and policy maker related on SMEs sector about the specific view of the cash holding in small firms in Malaysia.

1. INTRODUCTION

Cash holding is defined as cash or cash equivalent that can be easily converted into cash. For example, cash in hand, cash in bank, short term investment in a money market instrument such as commercial paper and marketable securities. Cash holding also can be defined as available cash in hand to finance profitable investment projects.

Generally, there are three reasons for firms' cash holding: for speculation, for precaution (Keynes, 1936) and for making transactions (Gao, Harford, and Li, 2013). All of these reasons stem from the need for firms to possess liquidity. Hence, the decision to determine how much cash holding is required is important in all firms. The firm should make good decision in cash holding for balancing the cost and benefit to ensure operating activities can sustain for longer periods. For instance, excessive levels of cash holding could lead to substandard return on a firm's investment (Minton and Schrand, 1999); while inadequate levels of cash holding may incur shortages and cause difficulties in maintaining day-to-day operations.

Therefore, firms should know how to manage their cash holding efficiently. Firms should achieve the optimal level of cash holding instead of excessive cash holding. However, lack of knowledge or finance expertise in most Malaysian SMEs may result in inefficient SMEs management including cash holding decision. Inefficient cash holding will affect the firm liquidity level and impact on firm performance (Priya and Nimalathasan, 2013). Firms will hold cash to reduce transaction costs and to avoid underinvestment due to shortage of funds. Conversely, the decision of holding excessive amounts of cash will have negative consequences on firm performance. The accumulation of cash holdings also may hide loss performance or reduce investment opportunities. Most previous studies have investigated the impact of cash holding on large firms or public firms (Opler et al., 1999). Limited study is found on small firm regarding cash holding. The characteristics of these different sized firms may impact on cash holding.

For example, a small firm may hold more cash compared to a large firm because of limited access to external financing (Beck, Demirgüç-Kunt, Maksimovic, 2008). Hence, small need to held more cashHowever, previous studies show that public firms or large firms hold more cash than private firms or small firms (Farre-Mensa, 2011; Gao et al., 2013). Small firms, however, have more short-term debt and limited access to external capital markets. Hence small firms had been closely monitored by banks (creditors). Additionally, private and small firms should hold higher precautionary cash holding than public firms since they have limited access to external financing. This limited access also makes SMEs in Malaysia use trade credit as the alternative source of financing (Seifert, Seifert, and Protopappa-Sieke, 2013). Small firms also need an appropriate level of cash holding to reduce their cost of external financing such as the cost of

short-term debt financing and to pay trade creditors. Hence, the purpose of this study is to investigate the effect of cash holding on the performance of SMEs in Malaysia. We also investigate the determinant factors of SMEs' cash holding.

2. LITERATURE REVIEW

2.1 CASH HOLDING

Gill and Shah (2012) define cash holding as cash in hand or readily available for investment in physical assets and for distribution to investors. Cash holding is important because it provides firms with liquidity, enabling them to pay their obligations on time even in bad times. Besides that, firms need to build up their cash holding to grow their sales and profits and also ensure the cash movement timing creates an overall positive cash flow situation. Cash holdings are an essential part of the firm's growth and survival. It receives a significant amount of consideration from investors and financial analysts. Cash holdings also minimize the firm's cash flow fluctuations and it is less pricey to turn excess cash into private benefits. Firms will hold the cash to reduce transaction costs and to avoid underinvestment due to fund shortage (Chen and Chuang, 2009).

Many studies have supported the effect of cash holding on profitability. For example, Palazzo (2012) has done study regarding this matters by using a data set of United States public companies. He found that the motive of cash holding is for precautionary purpose. This precautionary savings motive indicates a positive relation between expected equity returns and cash holdings. This explain that firms may increase performance by holding cash.

Sur, Biswas, and Ganguly (2001), investigated the positive association between liquidity and financial performance. Meanwhile, Pinkowitz, Stulz, and Williamson (2006) examined the determinants of the market value of cash holdings in US public firms over the period 1950 to 1999. Their results showed that both past and future changes of cash holding levels only contribute just a little to the firm market value. They also argued that the value of cash holdings increases for the firms with growth opportunities. Moreover, they demonstrated that cash holdings of corporates with constant investment opportunities and corporates facing the risk of insolvency were less valued. Evidence also exists that market share increases more than that of competitors with increasing levels of corporate

cash holdings. In addition, setting a fundamental strategy of success can be done by improving the firm's financial performance through good management of cash holdings under different market conditions (Abushammala and Sulaiman, 2014). By holding higher cash amount when the investment opportunities are bigger firms will enhance their financial performance (Opler et al., 1999).

2.2 HYPOTHESES DEVELOPMENT

2.2.1 LEVERAGE

Leverage is measured as total debt divided by the sum of total debt and shareholder funds. When firms have lower debt, they will hold more excess cash without being subject to monitoring by capital markets (Mortal and Reisel, 2014). Leverage also will lead firms to financial distress and bankruptcy. Debt can increase the probability of bankruptcy for a firm. Therefore, firms with higher leverage will hold more cash to reduce the probability of expected financial distress (Deloof, 2003). According to trade-off theory, there is a positive relationship between leverage and cash holdings. However, the leverage also acts as a proxy for the ability of firms to issue new debt. Hence, firms with high leverage will have easier access to capital markets and lower their cash holdings (D'Mello, Krishnaswami and Larkin, 2008). It can also be predicted that a negative relationship exists between cash holding and leverage. Thus, it is hypothesized:

H1:   There is a significant relationship between leverage and cash holding.

2.2.2 GROWTH OPPORTUNITIES

Growth opportunities are intangible in nature (Ozkan and Ozkan, 2004), and this tends to wipe out the positive net present value (NPV) of future investment opportunities (Ferreira and Vilela, 2004), and firm value for firms with high growth opportunities will be dependent on their realization only (D'Mello et al., 2008). Trade-off theory predicts that firms with better growth opportunities will have higher cash level to avoid cash shortfalls when needed. This corresponds to the transaction cost motive of holding cash (Opler et al., 1999). Pecking order theory predicts that firms with better growth opportunities will have higher cash level to avoid financial

distress which corresponds to the precautionary motive (Bates, Kahle, and Stulz, 2009). Thus, it is hypothesized:

H2:   There is a significant relationship between growth opportunities and cash holding.

2.2.3 FIRM SIZE

Firm size is one of the determinants of cash holding in small firms. From the previous study, the larger firms are expected to get financing more easily and cheaply. Smaller firms suffer from higher information asymmetry (Ozkan and Ozkan, 2004) and it causes the cost of internal funds to be lower than the cost of external financing (Ferreira and Vilela, 2004). Besides that, larger firms are inclined to diversify. Hence they have a lower probability of being in financial distress. The larger firms also have bank credit lines and better credit rating; both will help them obtain funds when necessary (Opler et al., 1999). In addition, small firms face more growth opportunities and higher business risk and tend to hold more cash because it is highly expensive for small firms to increase capital in the borrowing markets (Ferreira and Vilela, 2004). Thus, it is hypothesized:

H3:   There is a significant relationship between firm size and cash holding.

2.2.4 FIRM AGE

More mature firms typically have more stable cash flows and lower growth opportunities and require less cash. Older firms have established reputations and are likely to have a relationship with a bank that allows them to have steady access to funding. Smaller firms are more likely to be financially constrained (Schaller, 1993). Meanwhile, firm age is an important determinant of firm cash holding. Financial frictions occur depending on firm size and age dynamics for US firms and Canadian firms respectively and it is found that young firms face greater financial constraints (Huynh and Petrunia, 2007). Thus, it is hypothesized:

H4:   There is a significant relationship between firm age and cash holding.

2.2.5 CASH FLOW VOLATILITY

Cash flow volatility can be the same as risk or uncertainty cash flow. Uncertainty will lead to a situation where firms have more outlays than expected at times and also implies cash shortages in the future. So the firm with high cash flow volatility will keep higher level cash to hedge against the future cash flow shortages (Bates et al., 2009; D'Mello et al., 2008; Ferreira and Vilela, 2004; Opler et al., 1999). This is will be related to the precautionary motive for cash holding. The precautionary motive for cash holding is related to potential concern about having to cut dividends or suffer potential losses from forced divestitures of assets to obtain cash. It will be common sense to think that higher levels of uncertainty and risk are typically associated with higher levels of cash reserves, especially for financially constrained firms (Han and Qiu, 2007). Thus, it is hypothesized:

H5:   There is a significant relationship between cash flow volatility and cash holding.

2.2.6 CAPITAL EXPENDITURE

A firm having higher capital expenditure will tend to have more liquid assets (Opler et al., 1999). From the trade-off theory, a firm is able to fulfil the capital expenditure requirement by obtaining more cash or liquidity assets. Firms with high levels of capital expenditure will avoid that extra transaction cost which will increase the cost of external capital and cause the firms to hold more cash or liquid assets (Jani, Hoesli, and Bender, 2004).

However, according to the pecking order theory, firms will spend cash or internal resources if the firms have higher capital expenditure or investment and hence will hold less cash (Magerakis, Siriopoulos, and Tsagkanos, 2015; Wasiuzzaman, 2014;). Thus, it will be expected that a negative relationship exists between cash holding and capital expenditure. Besides that, it will allow the firms to take up more debt and increase debt capacity. Debt financing will be considered after exhausting retained earnings and debt repaid when retained earnings are high. Then, the cash holding will be lower. So firms with high capital expenditure will use up their assets from the capital expenditure, as collateral and increase the debt capacity then reduces the cash holdings (Bates et al., 2009; Wasiuzzaman, 2014). Thus, it is hypothesized:

H6:   There is a significant relationship between capital expenditure and cash holding.

2.2.7 NET WORKING CAPITAL

Net working capital is a cash substitute in liquidity terms in both public firms and private firms (Opler et al., 1999). Net working capital is defined as the difference between current assets and current liabilities excluding cash (Gao et al., 2013). The other typical cash substitutes are the current assets or liquidity assets that can be converted easily into cash (Wasiuzzaman, 2014). According to the trade-off theory, if the liquid assets can be liquidated then the firms will hold less cash regardless of amount of cash needed (Ferreira and Vilela, 2004). This represents the transactions motive for cash holdings and it implies an expected negative relationship between cash holdings and net working capital (Bates et al., 2009; Wasiuzzaman, 2014). Thus, it is hypothesized:

H7:   There is a significant relationship between net working capital and cash holding.

2.2.8 CASH HOLDING AND PERFORMANCE

Previous research has provided much evidence of the cash holdings effect on firm performance. Pecking order theory predicts that the positive effect of return on assets (ROA) on cash holdings (Ogundipe, Salawu, and Ogundipe, 2012). The firms having higher cash holdings than their competition achieve better performance and profitability when measured by ROA (Fresard, 2010). Evidence from the study of Abushammala and Sulaiman (2014) reveals a firm's market share increases more than that of its competitors as a result of increasing levels of corporate cash holdings. They also suggest with good managing of cash holdings within different market conditions may improve the firm's financial performance. When the investment opportunities are bigger to justify holding higher cash, the firms doing so will see a positive effect on their financial performance (Opler et al., 1999). Thus, it is hypothesized:

H8:   There is a significant relationship between cash holding and return on asset (ROA).

2.3 THEORETICAL FRAMEWORK

Figure 1 shows the framework of this study, which derives from the several researchers that developed a framework. The tradeoff theory and pecking order theory have been proven to support the application of cash holding where it is conceptualizing, measuring and empirically identifying the determinants.

FIGURE 1
Proposed Theoretical Framework of the Study
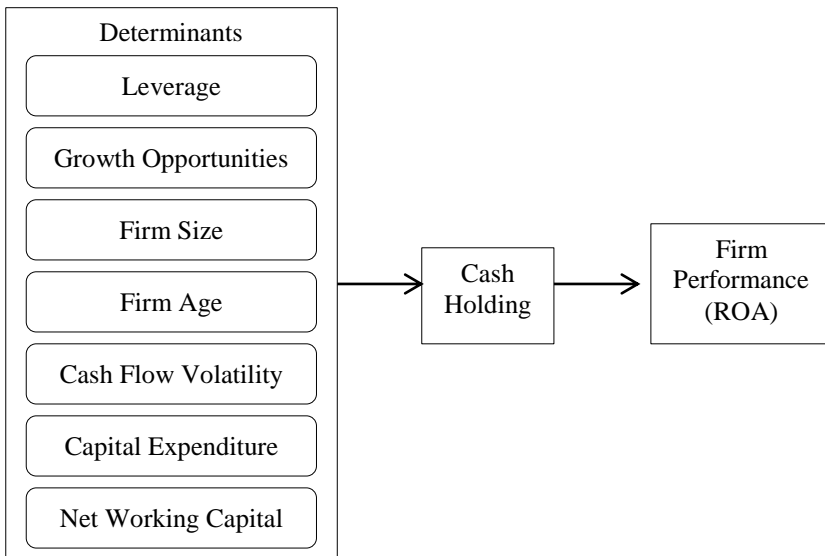
3. METHODOLOGY AND DATA

This study used secondary data of SMEs that had submitted their financial statement to the Companies Commission of Malaysia (SSM) for the period 2011-2016. SME has a very limited ???to provide a formal financial reporting, thus 100 firms are equivalent to collected. The results of this study were derived from panel data analysis, which was conducted using STATA11. Thus, this study estimates regression model employ panel data analysis technique in obtaining unbiased, consistent and efficient estimator. The regression model of firm performance whereby ROA as the dependent variable (Model 1) is given as:

(1) $\qquad ROA_{it} = \beta_0 + \beta_1(CH)_{it} + \beta_2(LEV)_{it} + \beta_3(OG)_{it} + \beta_4(FS)_{it} + \varepsilon_{it}$

where ROA is the dependent variable which measures the firm's performance. Thus, ROA is a profitability ratio that measures the net income produced by total assets during a period by comparing net income to the average total assets. Besides that, the ROA ratio measures how efficiently a firm can manage its assets to produce profits during a period. This will give the effect of cash holdings. The combination of variables is to create the equation for Model 1. Cash holding (CH) is used as an independent variable and takes into consideration three firm-specific variables as control variables; leverage (LEV), growth opportunities (GO) and firm size (FS).

In the second model (Model 2) we used cash holding (CH) as a dependent variable. The estimation model of this research follows the approach of Opler et al. (1999) and Wasiuzzaman (2014). Seven (7) variables were used as independent variables namely leverage, growth opportunities, firm size, firm age, cash flow volatility, capital expenditure and net working capital.

The regression model of cash holding determinant to be estimated is given as:

(2) $\qquad CH_{it} = \beta_0 + \beta_1 Ln(LEV)_{it} + \beta_2 Ln(GO)_{it} + \beta_3(FS)_{it} + \beta_4(FA)_{it} + \beta_5(CFV)_{it} + \beta_6 CE)_{it} + \beta_7(NWC)_{it} + \varepsilon_{it}$

where
ROA_{it} = Return on asset of firm i at time t
CH_{it} = Cash holding of private firm i at time t
LEV = Leverage
GO = Growth opportunities
FS = Firm size
FA = Firm age
CFV = Cash Flow Volatility
CE = Capital expenditure
NWC = Net working capital
β_0 is constant
β_{1-7} are coefficients of variables
ε_{it} is the error term

4. FINDINGS

Table 1 shows the descriptive statistics for all variables in Model 1 and Model 2. We can see the total observation is supposed to be 600 firm-year. However, some of the variables have less than 600 observations because of missing values. The mean of ROA is 0.0319 with the standard deviation 0.6841 and ranging between -6.6592 and 5.4018. Meanwhile, the mean of CH is 0.1313 with the standard deviation 0.2565 and ranging between -0.2494 and 1.5646. The range of GO is -3.6831 and 4.7153. The standard deviation of firm size and firm age are 1.8814 and 0.5484 respectively. Results also show that mean of LEV and CFV are 0.9740 and 0.0840 respectively. The range of CE is 0.0953 and 16.7760. The range of NWC -2.0688 and 1.6480. These values show some firms are getting better growth on sales while others are not getting better growth.

TABLE 1
Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	594	0.0319	0.6841	-6.6592	5.4018
CH	600	0.1313	0.2565	-0.2494	1.5646
LEV	592	0.9740	1.5588	0.0094	32.2151
GO	570	0.1327	0.6233	-3.6831	4.7153
FS	600	15.2649	1.8814	7.7073	19.5098
FA	570	2.7083	0.5484	-0.1178	3.5836
CFV	594	0.0840	0.7022	-6.78338	5.5002
CE	600	14.2606	0.9921	0.0953	16.7760
NWC	594	0.2102	0.3870	-2.0688	1.6480

Note: ROA = return on asset, CH = cash holding, LEV = leverage, GO = growth opportunity, FS = firm size, FA = firm age, CFV = cash flow volatility, CE = capital expenditure and NWC = net working capital

Table 2 shows the regression result of Model of Firm Performance (Model 1). The estimations are tested across pooled OLS model, two-way fixed effects model, and two-way random effects model. We did the model specification tests using Breusch-Pagan LM and Hausman tests. H_0 of the Breusch-Pagan LM test is Pooled regression is preferable than a Random Effect model; while H_0 of Hausman Test is Random Effect is preferable to a Fixed Effect model. Based on the test statistics, the pooled OLS and two-way random effects models were rejected. This implies that after considering the possibility of heterogeneity among Malaysian SMEs

and possibly omitted time-dependent variables, the two-way fixed effect model is the most efficient in explaining the effect of cash holding on SME performance.

TABLE 2
Regression Analysis of Cash Holding and Firm Performance

	Pooled OLS	Random Effect	Fixed Effect	Fixed with Hetero & Serial Correlation
Constant	-0.0150	-0.2634	-0.7827	-0.7827
	(-0.22)	(-2.46)	(-4.33)	(-1.92)
Cash holding	0.0989	0.1208	0.1436	0.1436
	(3.28)[a]	(3.79)[a]	(3.89)[a]	(1.72)[c]
Leverage	-0.0550	-0.0438	-0.0434	-0.0434
	(-6.44)[a]	(-5.31) [a]	(-4.89)[a]	(-1.46)
Growth Opportunity	0.0135	-0.0026	-0.0068	-0.0068
	(1.30)	(-0.35)	(-0.90)	(-1.10)
Firm Size	0.0041	0.0193	0.0526	0.0526
	(0.97)	(2.84)[a]	(4.52)[a]	(1.99)[c]
Breusch-Pagan LM test	475.33 (0.0000)[a]		-	-
Hausman Test		28.41 (0.0000)[a]		-
Observation	564	564	564	564
Multicollinearity (vif)	-	-	1.08	-
Heteroskedacity (x^2-stat)	-	-	390.07 (0.0000)[a]	-
Serial Correlation (F-stat)	-	-	47.66 (0.0000)[a]	-

Note: Figures in parentheses are *t*-statistics, except for Breusch-Pagan LM test, Hausman test, Heteroskadisticity and Serial Correlation test, which are *p*-value.
[a],[b] and [c] indicate the respective 1%, 5% and 10% significance level.

The diagnostic test results are also displayed in Table 2. Multicollinearity is indicated by Variance Inflation Factor (VIF);

results show that no multicollinearity problems exist in the fixed effect model. However, results show the existence of heteroskedasticity problem and autocorrelation problem in the fixed effect model. The heteroskedasticity has to be remedied with White's robust standard errors. Hence, the result of Model 1 was explained by using a result of fixed effect model after controlling Heteroskedasticity and autocorrelation errors using White robust standard errors and firm clustering in column 5 of Table 2.

Results show that cash holding has a significantly positive (0.1436) relationship with firm performance at the 1% significance level. This indicates that the more cash held in the SMEs in Malaysia, the higher their profit. Hence, Malaysian SMEs should increase cash held in the firm to improve firm performance. This is because SMEs have limited access to external financing. Hence, the higher cash holding held in a firm may be used to fulfil immediate customer demand especially in scaling up without any difficulty. We also can see that the control variable for firm size has a positive relationship with firm performance.

Results of determinant factors of SMEs cash holding in Malaysia are exhibited in Table 3. Similar with Model 1, the estimation of Model 2 (Model of Cash Holding Determinant) was also tested across the pooled OLS model, two-way fixed effects model, and two-way random effects model. We also did the model specification tests using Breusch-Pagan LM and Hausman tests. H_0 of the Breusch-Pagan LM test is that the Pooled OLS regression is preferable to the Random Effect model; while H_0 of Hausman Test is that the Random Effect model is preferable to the Fixed Effect model. Based on the test statistics, the pooled OLS and two-way random effects models were rejected. This implies that after considering the possibility of heterogeneity among Malaysian SMEs and possibly omitted time-dependent variables, the two-way fixed effect model is the most efficient in explaining the determinant factors of SMEs' cash holding in Malaysia.

The diagnostic test results are also displayed in Table 3. Multicollinearity is indicated by the Variance Inflation Factor (VIF); results show that no multicollinearity problems exist in the fixed effect model. However, similar with Model 1, Model 2 results also show existences of heteroskedasticity problem and autocorrelation problem in the fixed effect model. The heteroskedasticity has to be remedied with White's robust standard errors. Hence, the result of Model 2 was explained by using the result of fixed effect model after controlling Heteroskedasticity and autocorrelation errors using White

robust standard errors and firm clustering in column 5 of Table 3.

TABLE 3
Determinant of Cash Holding

	Pooled OLS	Random Effect	Fixed Effect	Fixed with Hetero & Serial Correlation
Constant	0.0098	0.2393	0.5533	0.5533
	(0.05)	(1.32)	(2.27)	(2.11)
Leverage	0.0420	0.0474	0.0490	0.0490
	(3.01)[a]	(4.31)[a]	(4.24)[a]	(2.14)[b]
Growth	0.0989	0.0585	0.0565	0.0565[a]
Opportunity	(6.24)[a]	(6.14)[a]	(5.87)[a]	(2.73)
Firm Size	0.0022	-0.0129	-0.0330[b]	-0.0330[b]
	(0.29)	(-1.14)	(-2.01)	(-2.60)
Firm Age	0.0637	0.0431	0.0408	0.0408
	(3.42)[a]	(1.65)	(1.18)	(1.12)
Cash Flow	0.2224	0.3024	0.3122	0.3122
volatility	(3.86)[a]	(6.83)[a]	(6.60)[a]	(8.85)[a]
Capital	-0.0102	-0.0062	-0.0057	-0.0057
Expenditure	(-1.04)	(-1.12)	(-1.04)	(-2.08)[b]
Net Working	-0.0535	-0.0677	-0.0723	-0.0723
Capital	(-1.68)[c]	(-2.35)[b]	(-2.26)[b]	(-2.03)[b]
Breusch-Pagan	691.18			-
LM test	(0.0000)[a]			
Hausman Test	-	58.98		-
		(0.0000)[a]		
Observation	534	534	534	534
Multicollinearity (vif)	-	-	1.20	-
Heteroskedacity (x^2-stat)	-	-	480.86 (0.0000)[a]	-
Serial Correlation (F-stat)	-	-	20.39 (0.0000)[a]	-

Note: Figures in parentheses are *t*-statistics, except for Breusch-Pagan LM test, Hausman test, Heteroskadisticity and Serial Correlation test, which are *p*-value.

[a],[b] and [c] indicate the respective 1%, 5% and 10% significance level.

Results in Table 3 show that all determinant factors of cash holding are significant except firm age. Leverage was found to have a positive relationship with cash holding at the 5% level with coefficient 0.0490. SMEs that have higher debt will hold more cash to ensure they can pay debt on time. This may prevent financial distress in line with Deloof (2003). Thus, hypothesis 1 is supported in this study. Growth opportunity also has a positive relationship with cash holding at the 1% significance level. It reveals that SMEs that have growth opportunity will hold more cash. SMEs have limited access to external financing. Hence if SMEs have the opportunity to grow, they will keep more cash so they may use the cash when needed. Thus, hypothesis 2 is supported in this study.

Results show that firm size is negatively related to cash holding at the 5% significance level. This reveals that large SMEs will hold lower cash amounts than small size SMEs. Small SMEs expect more growth opportunities and higher business risk. Therefore, they tend to hold more cash because it is highly expensive for them to increase capital in the borrowing markets (Ferreira and Vilela, 2004). Hence, hypothesis 3 is supported in this study. As expected, cash flow volatility has a positive relationship with cash holding. Cash flow volatility indicates risk uncertainty of SMEs. Hence, SMEs that have high cash flow volatility will hold more cash. This is related to the precautionary motive for cash holding. Thus, Hypothesis 5 is supported in this study.

Capital expenditure and net working capital are negatively related to cash holding at the 5% significance level. SMEs will be spending more internal resources if they have higher capital expenditure or investment. Hence, they will use cash for capital expenditure which affects to hold less cash (Magerakis et al., 2015; Wasiuzzaman, 2014). Thus, Hypothesis 6 is supported in this study. Finally, SMEs that have higher net working capital will hold less cash. This is because net working capital is a liquid asset which is easily cashed. Therefore, though SMEs held low cash they are still secure since they have more net working capital. Thus, Hypothesis 7 is supported in this study.

5. CONCLUSION

The objective of this study was to investigate the effect of cash holding on SME performance. We found that cash holding has a significant positive relationship with ROA. The results indicate that SMEs should have more cash holding to increase firm performance.

Further, SMEs should consider several factors in managing cash holding. This is because we found that leverage, growth opportunity, firm size, cash flow volatility, capital expenditure and net working capital have a relationship with SMEs' cash holding. Therefore, when SMEs make decision on how much cash holding to keep, they need to consider all the above factors to increase their performance. However, the findings need to be validated by further research in the future, especially because this finding was based on data coming from 100 SMEs only. For further research, two recommendations are proposed. Firstly, more SMEs should be considered as a sample for the study. Second, in-depth insights can be gained through analysis on different sectors of SMEs.

In conclusion, the study will help the small business managers to understand the determinants and the performance of cash holding. The managers can use the findings as a guideline for helping them to manage their firm activity efficiently and effectively. Besides, this study can provide information as a guideline for investors to refine their investment decisions. Since the result shows the performance of cash holding in small businesses, thus, government or policymakers can use this research as a reference to create some policy or standards in order to control SME cash holdings. Apart from that, this empirical study can enrich the literature on determinants of cash holding and their effect on performance of small business enterprises in Malaysia.

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